

## A GUIDE FOR HAZARDOUS WASTE ROOM USE – UNIVERSITY OF OTTAWA

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The Office of Risk Management, Environmental Health and Safety (ORM) 562-5892

### General Rules:

#### 1. Only Chemical Hazardous Waste can be Stored in Chemical Waste Rooms :

- Do not store boxes of glass (broken or otherwise), empty twenty (20) litre solvent pails, garbage or non-hazardous waste goods.
- **Biohazardous Waste (WHMIS Class D):** hazardous Sharps waste must be stored in 4.5 L yellow plastic jugs and placed in the designated infectious products hazardous waste storage room.
- **Radioactive waste** must be stored according to practices covered in the Radiation Safety training that persons working with radioactive materials must complete.
- **Compressed Gases (WHMIS Class A):** there are gas cylinder storage rooms throughout the campus to store compressed gases. If you have empty (or full) **lecture bottles** of gas to be disposed of call the ORM.

#### 2. Labelling: any container used to store hazardous waste **must be labelled**. Labels for this purpose are available in designated hazardous waste rooms. Each container be clearly labelled at a minimum with:

- contents (this is required to classify the waste for disposal);
- date the hazardous waste was stored in the room;
- location of origin (last known owner or user); and
- waste generator contact information.



#### 3. Containers :

- **Empty containers** should be rinsed, the caps removed and the labels defaced then disposed in the recycling room (if metal) or the regular garbage. If you have any questions call the ORM.
- Waste containers must be **closed** at all times, except while filling. Do not leave funnels in the containers.
- **Damaged or leaking** containers are to be placed in a larger container to prevent spillage.
- Do not store containers (empty or otherwise) above eye level for your safety. The waste room shelves are for light items only.

#### 4. Storage:

- Waste must be stored in an appropriate container, i.e. one that is lined with compatible material and not react with the hazardous waste. For example, do not place hydrofluoric acid in glass, the glass will dissolve. The original container is often best.
- Each waste type is assigned an area in the room to ensure incompatible chemicals do not react with each other. The shelves in the waste rooms are labelled to indicate what can be stored on them. Waste must be stored in the correct location in the room.
- It is inappropriate to store hazardous waste outside of bermed areas.

#### 5. Housekeeping: Housekeeping issues are the responsibility of your Faculty or Service.

**Instructions – Storing Specific Wastes**

- a) **Flammables (WHMIS Class B):** There are flammable specially designated storage cabinets for organic liquids, which are built to withstand fire and explosions.
- There are some empty twenty (20) litre pails in the room for your use.
  - The bottom shelves are for twenty (20) litre containers. Since some organic liquids and their mixtures can be corrosive, metal cans are NOT an acceptable means of storage.
- b) **Corrosives (WHMIS Class E)** require corrosive storage cabinets, which have epoxy paint resistant to acids/bases and shallow basins on each shelf to contain spills.
- Only glass bottles can be used to store corrosive waste.
  - Since corrosive liquids can generate vapours, ensure that the bottles are tightly sealed, and stored according to the labels on the shelves in the waste room.
  - There are separate storage areas for liquid acids and bases.
- c) **Oxidizing solids (WHMIS Class C)** are to be stored in glass or plastic.
- d) **Reactive chemicals (WHMIS Class F)** are to be stored in their original bottles if possible. The Label must clearly indicate that the product is reactive.

Generally the “reactive hazard” we associate with these materials is reaction on contact with moisture (air), changes in heat, or time of storage. Examples of these materials are: sodium, potassium, and lithium metals; acid anhydrides (i.e. lithium aluminium hydride, sodium borohydride), and acid chlorides (i.e. benzoyl chloride).

NOTE: Peroxides and ethers are reactive chemicals but are not to be stored in all hazardous waste rooms. If you have peroxides or ethers to dispose, call the ORM. These products require special attention.

- e) **Toxic substances (WHMIS Class D)** are to be stored together in bottles with a clean exterior. Ensure that you wear gloves and wash your hands after handling these containers. Examples of toxic substances are compounds containing cyanides or mercury, and pesticides.
- f) **Other materials** that may be stored here include: used paints, photographic wastes, and expired samples (all stored in a box and the box labelled).

**Segregation of Wastes**

<b>Segregate dry reagents as follows:</b>	<b>Segregate liquids as follows:</b>
<ul style="list-style-type: none"> <li>• Oxidizing salts (see item c)</li> <li>• Flammable solids (see item a)</li> <li>• Water-reactive solids (see item d)</li> <li>• All other solids</li> </ul>	<ul style="list-style-type: none"> <li>• Acids -separate mineral acids (hydrochloric, sulfuric) from organic acids (picric, acetic) (see item b)</li> <li>• Bases (see item b)</li> <li>• Oxidizers</li> <li>• Perchlorates</li> <li>• Flammable and/or combustible liquids (see item a)</li> <li>• All other liquids</li> </ul>